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US 4316236 A US 4301495 A

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(54) Abstract Title

Computer housing has mother board mounted on a rotatable back plate

(57) A computer housing (20, Figure 3) has an annular housing frame (21) in which is a rectangular rear opening (22). A rectangular back plate 23 mounted within the rear opening has a mother board 24 mounted on it, in the space 25 defined within the frame. A pivotal side (231), which is pivoted on the annular housing frame, allows the back plate to swivel about a vertical axis on the frame. The opposite side (232) of the plate is secured to the frame by bolts, the removal of which allows the plate to be swivelled out of the opening. This removes the mother board from the accommodating space 25, thereby facilitating repair and maintenance of other parts within the housing frame.

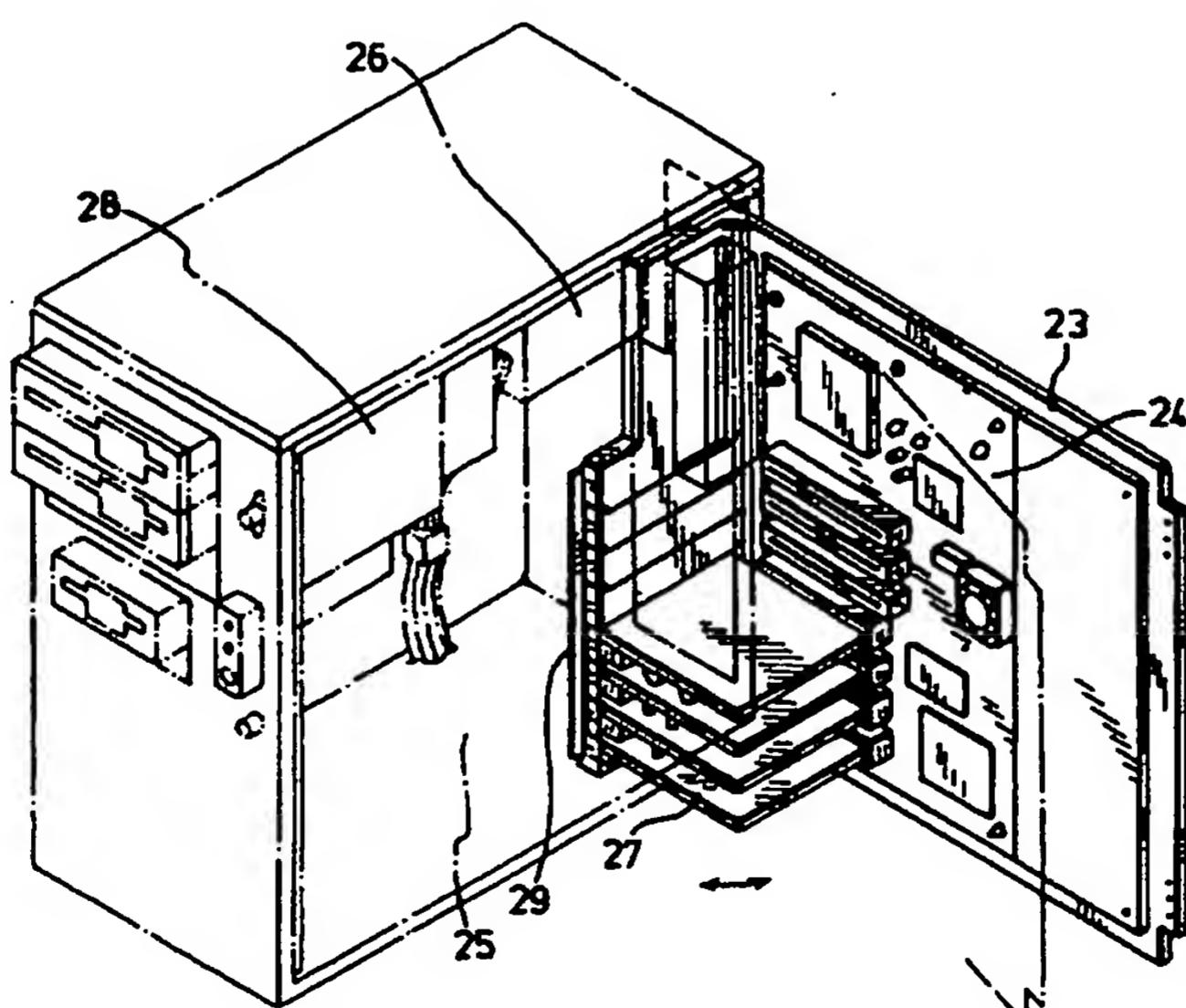


FIG.6

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FIG. 1 PRIOR ART

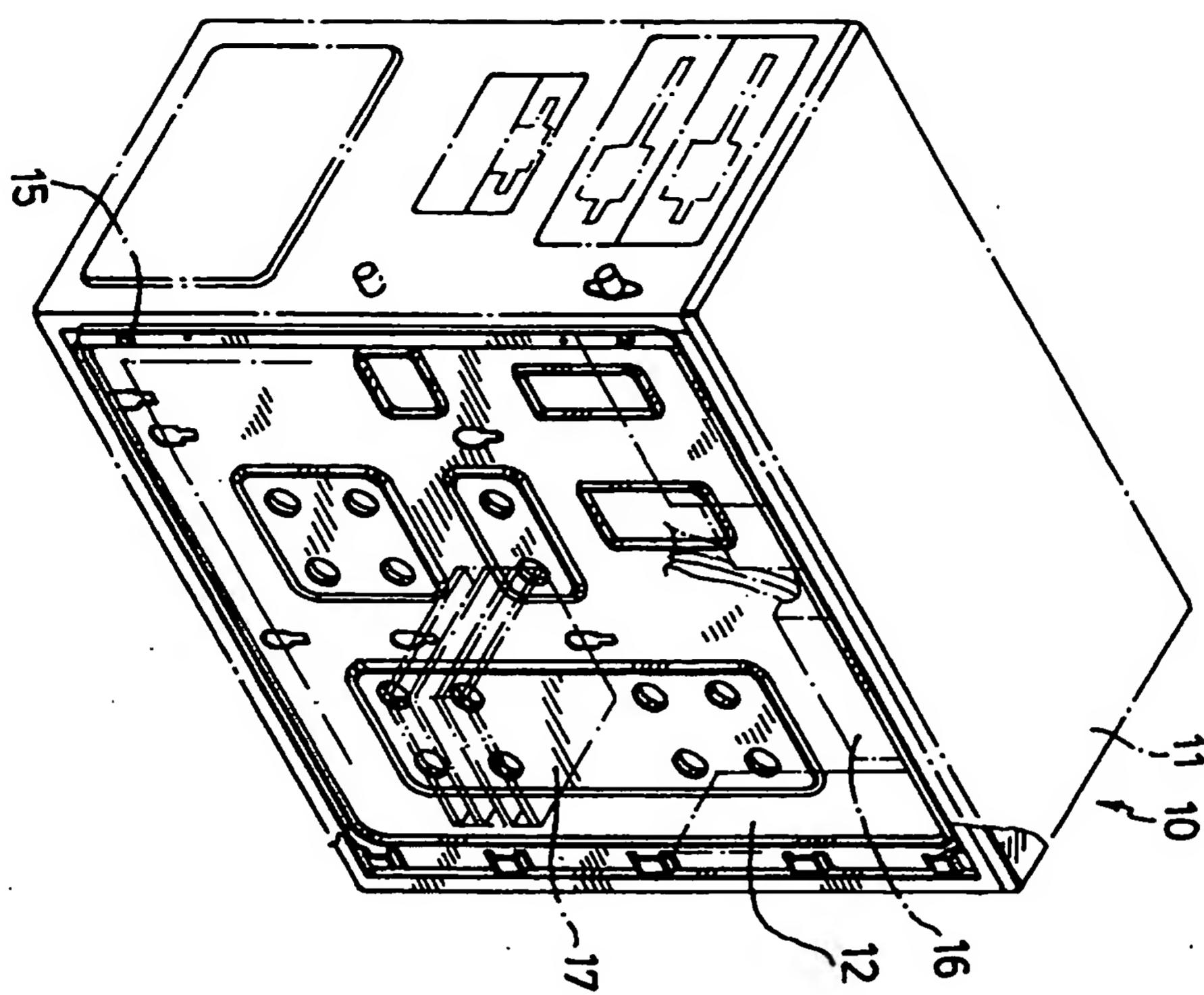


FIG. 2 PRIOR ART

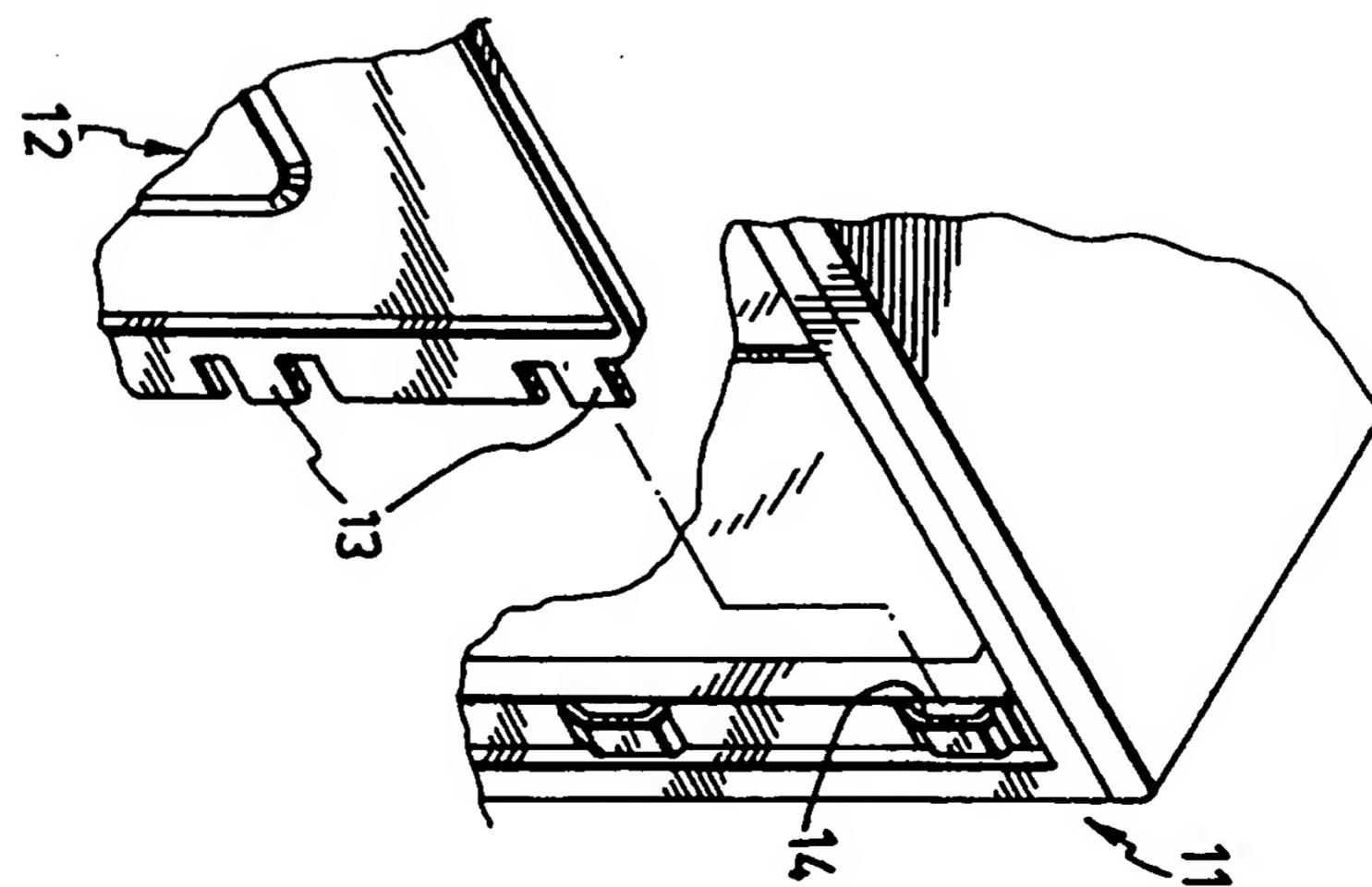


FIG.3

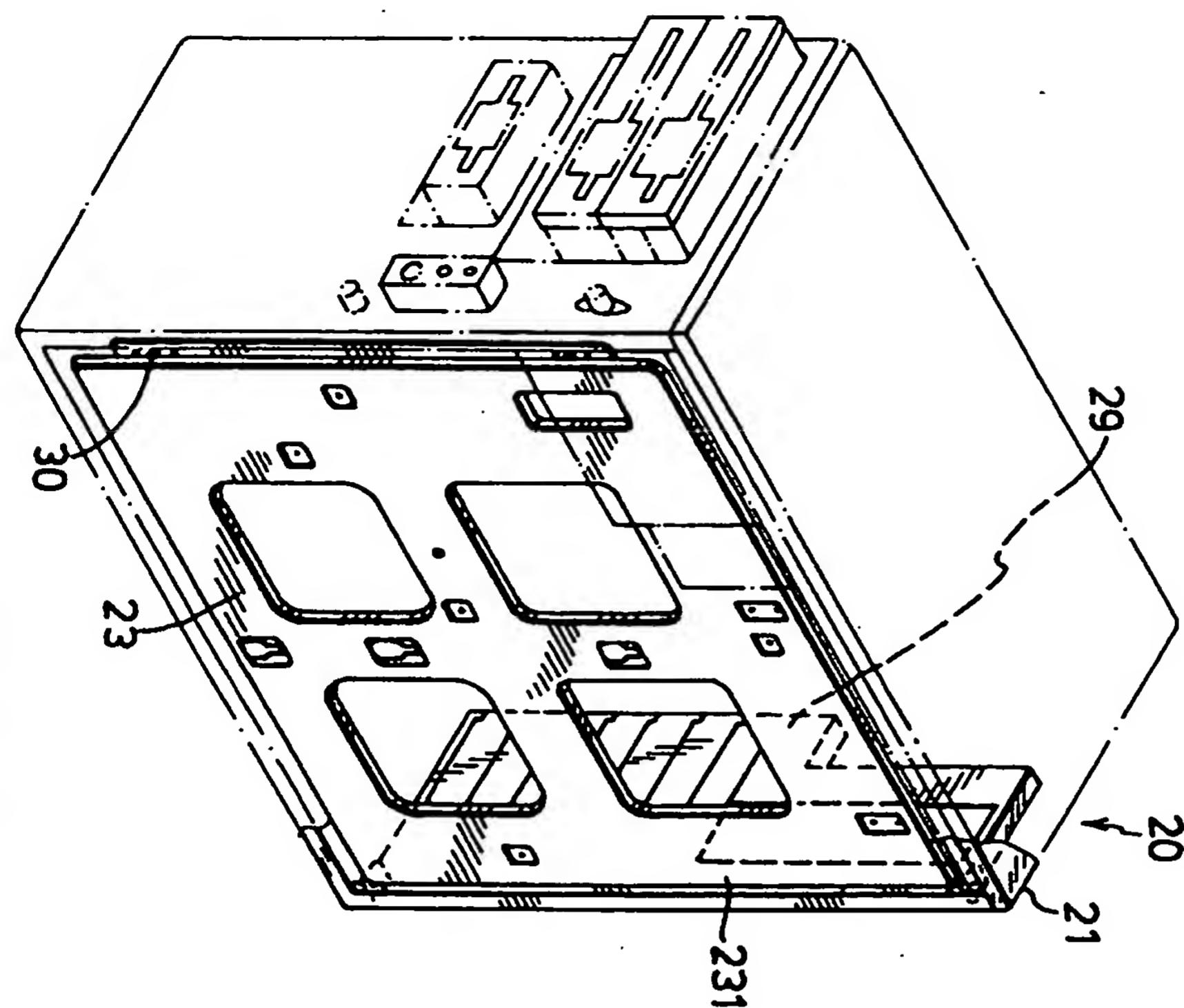
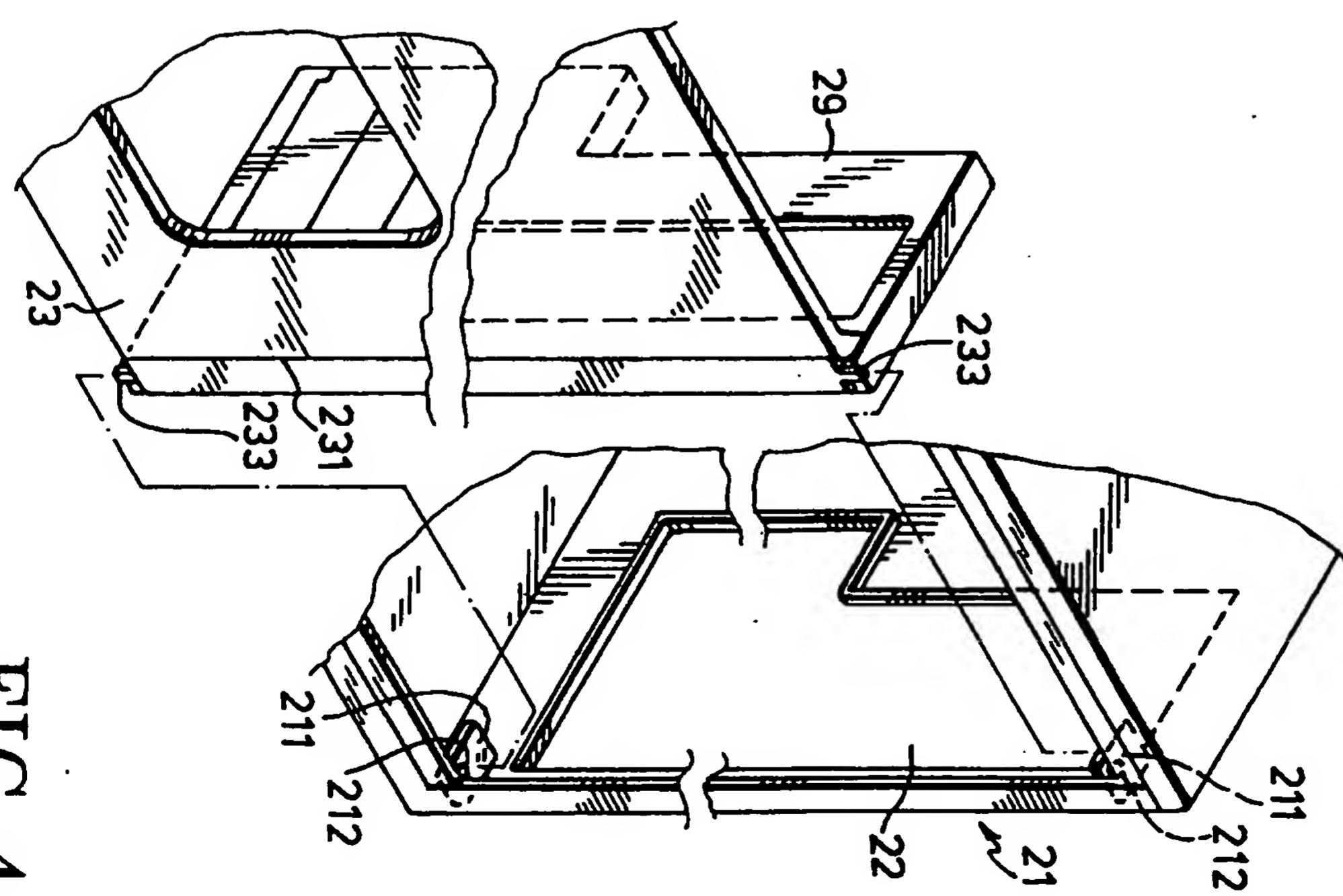


FIG.4



2/5

FIG.5

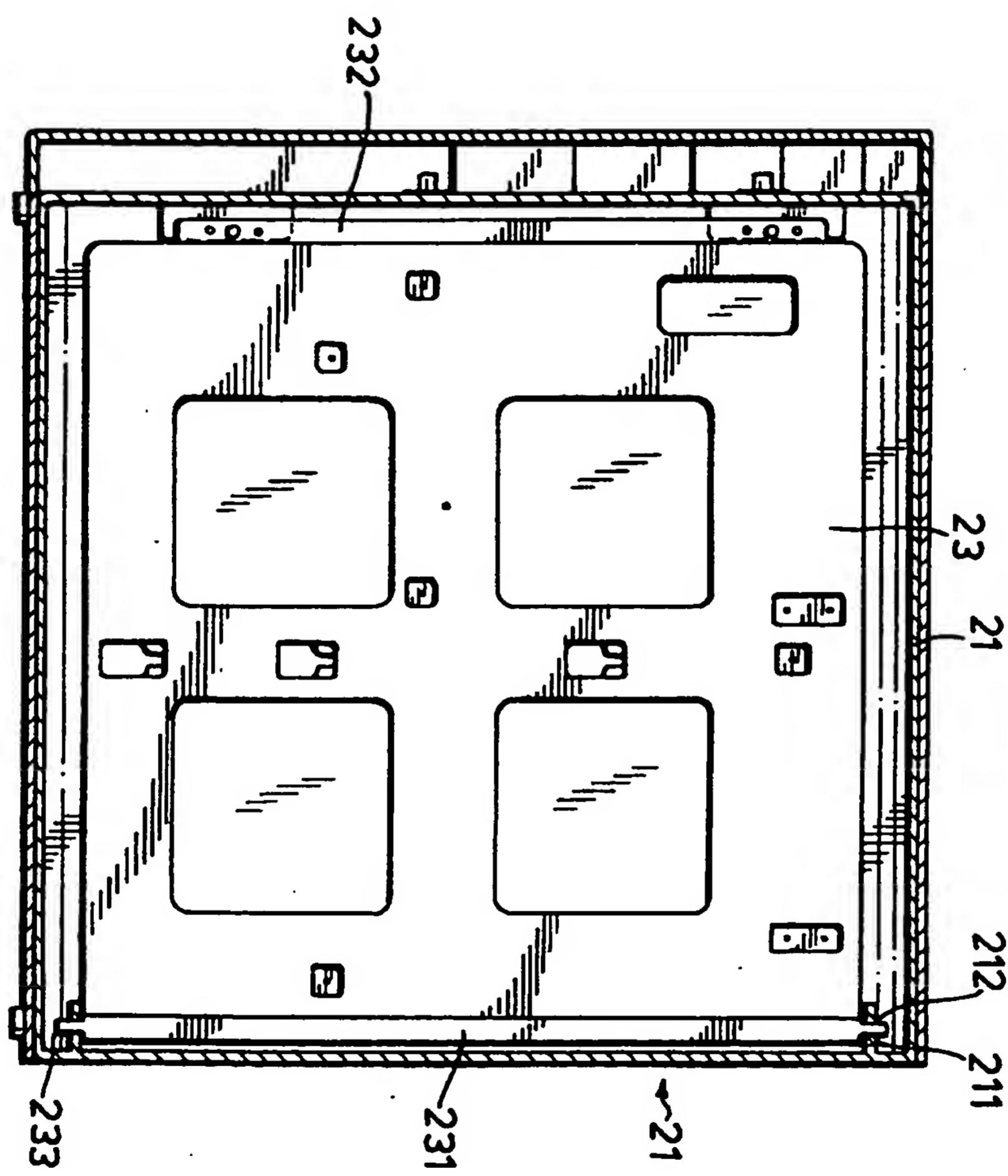


FIG. 6

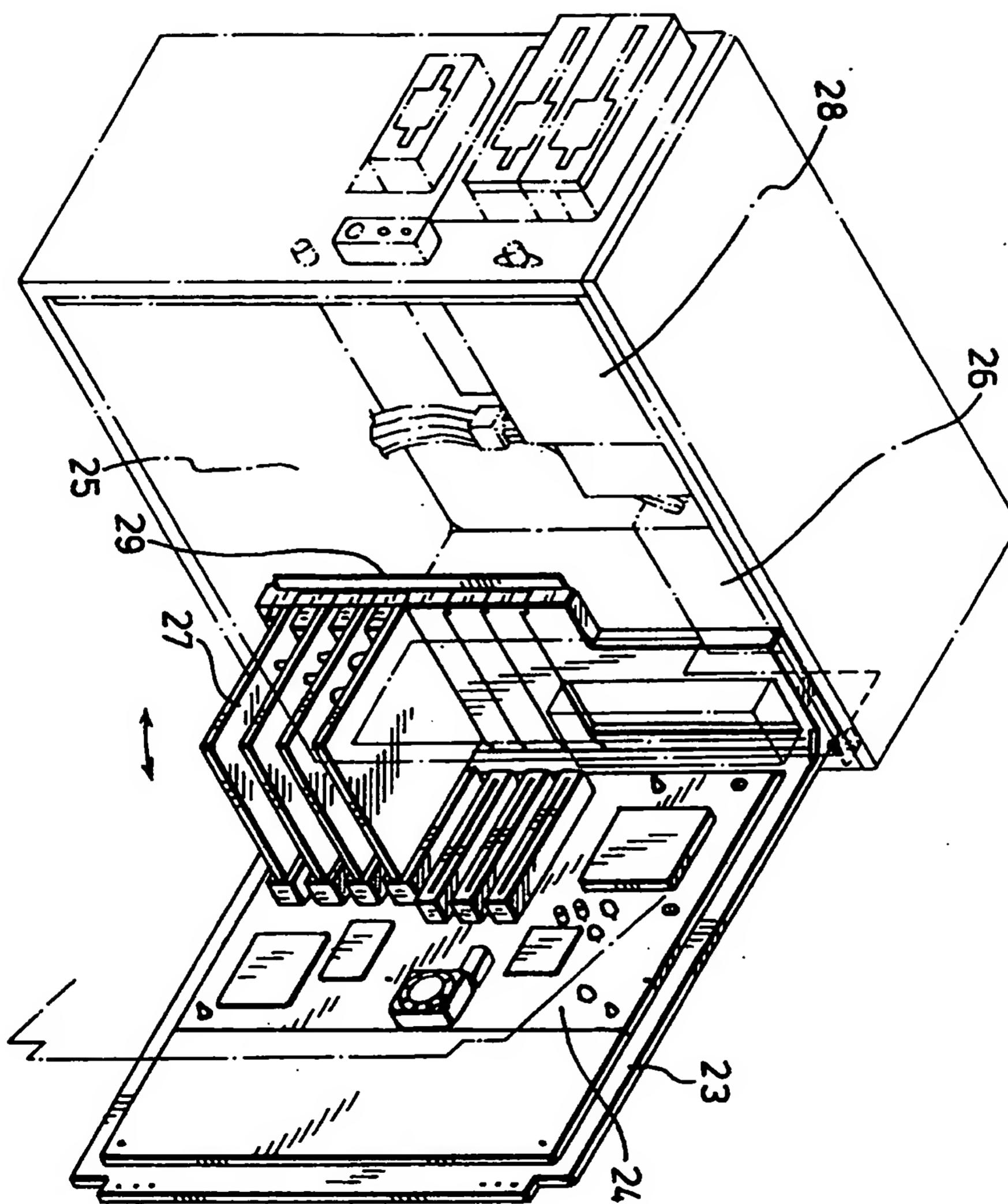
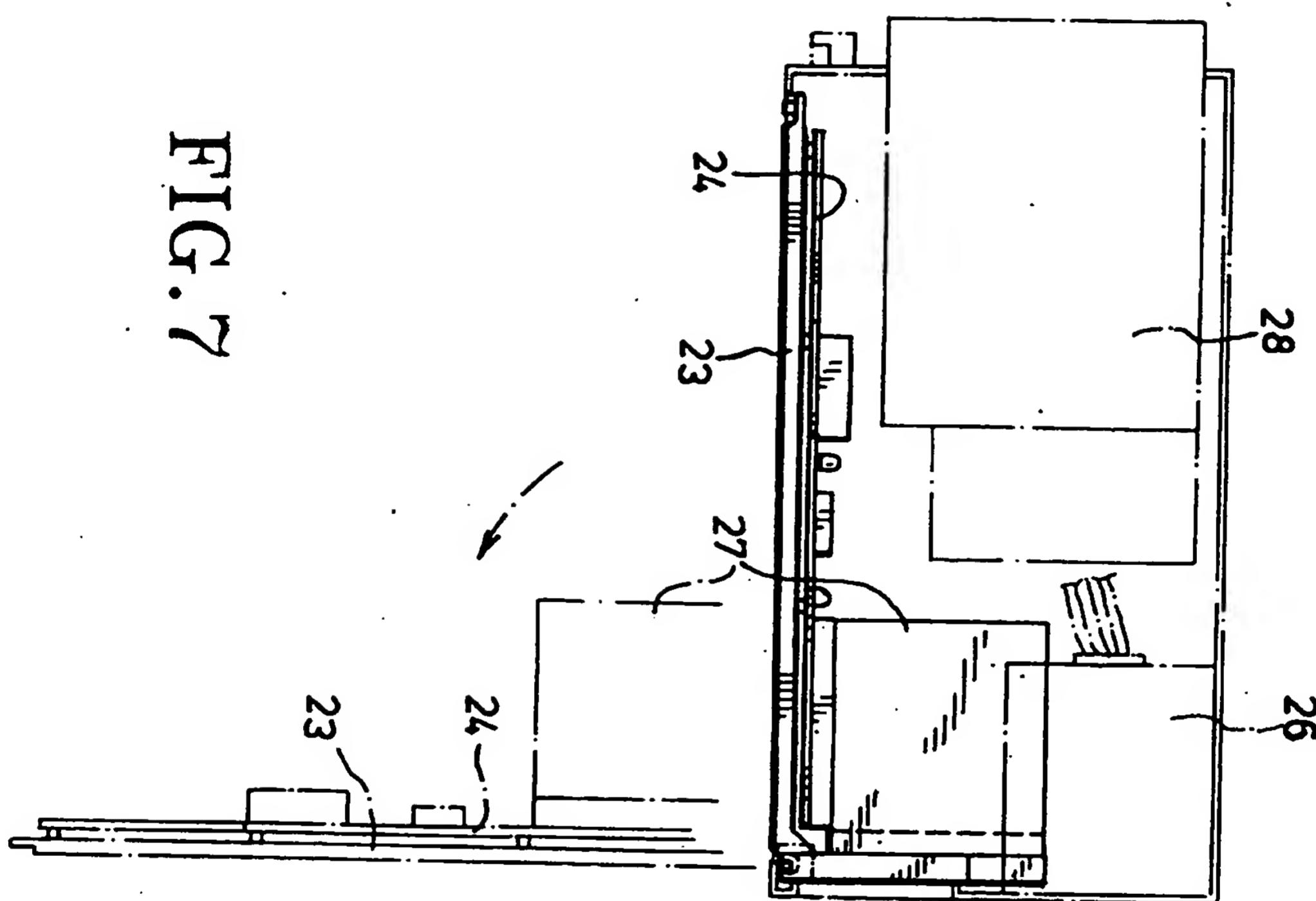


FIG. 7



5/5

**TITLE: COMPUTER HOUSING HAVING A ROTATABLE BACK PLATE ON
WHICH A MOTHER BOARD IS MOUNTED**

This invention relates to a computer housing, more particularly to a computer housing that has a rotatable back plate on which a mother board is mounted.

Referring to Figs. 1 and 2, a conventional computer housing 10 is shown to include an annular housing frame 11 and a back plate 12 which has a plurality of horizontal tongues 13 at the right side thereof that are respectively inserted into a plurality of fixed retaining pieces 14 on the annular housing frame 11. The left side of the back plate 12 is connected removably to the annular housing frame 11 by bolts 15. In the computer housing 10, there are provided many parts, such as a mother board (not shown) attached to an inner surface of the back plate 12, a power supply 16 and several interface cards 17. To repair and maintain these parts, it is necessary to remove the back plate 12 from the annular housing frame 11. However, it is time-consuming to remove the back plate 12.

The object of this invention is to provide a computer housing with a rotatable back plate which has a mother board mounted thereon and which can be rotated relative to an annular housing frame of the computer housing so as to remove the mother board from an internal space defined in the annular housing frame,

thereby facilitating repair and maintenance of other parts in the computer housing.

According to this invention, a computer housing has an annular housing frame which defines a generally rectangular rear opening in a rear end portion thereof, and a generally rectangular back plate which is mounted within the rear opening and which is adapted to mount a mother board thereon. The annular housing frame defines an accommodating space which is adapted to accommodate the mother board therein. The back plate has a pivotal side which is pivoted to the annular housing frame so that the back plate can rotate about a vertical axis on the annular housing frame, and a free side which is opposite to the pivotal side and which is connected removably to the annular housing frame, thereby positioning the back plate within the rear opening. Accordingly, the free side of the back plate can be turned out of the annular housing frame for removal of the mother board from the accommodating space, thereby facilitating repair and maintenance of other parts in the annular housing frame.

Other features and advantages of this invention will become apparent in the following detailed description of the preferred embodiment of this invention with reference to the accompanying drawings, 25 in which:

Figs. 1 and 2 illustrate a conventional computer housing;

Fig. 3 is a schematic view showing a preferred embodiment of a computer housing of this invention;

5 Fig. 4 is an exploded view illustrating the pivotal structures of a back plate and a housing frame of the preferred embodiment;

Fig. 5 is a sectional rear view illustrating how the back plate is pivoted to the housing frame;

10 Fig. 6 is a schematic perspective view of the preferred embodiment, illustrating how the back plate is rotated between an open position and a closed position; and

15 Fig. 7 is a schematic top view of the preferred embodiment, illustrating how the back plate is rotated between the open position and the closed position.

Referring to Figs. 3, 4 and 5, a preferred embodiment of a computer housing 20 of this invention is shown to include an annular housing frame 21 which defines a generally rectangular rear opening 22 in a rear end portion thereof, and a generally rectangular back plate 23 which is mounted within the rear opening 22 and which is adapted to mount a mother board 24 (see Fig. 6) thereon. The annular housing frame 21 defines an accommodating space 25 (see Fig. 6) which is adapted to accommodate the mother board 24 (see Fig. 6) therein.